Digital Technology for Health and Wellbeing

Giving you choice and control
**Context**

"I am determined that Scotland’s health service should lead the way in delivering care in new and innovative ways that really benefit patients. Technology will help us do exactly that. Importantly it looks at care in a rounded way – not just treating people as patients but linking them into their local community and helping them to pursue interests that keep them healthy."

Alex Neil MSP  
Cabinet Secretary for Health and Wellbeing

The Scottish Government’s 2020 Vision is that by 2020 everyone is able to live longer healthier lives at home, or in a homely setting and, that we will have a healthcare system where:

- There will be a focus on ensuring that people get back into their home or community environment as soon as appropriate, with minimal risk of re-admission

Increasingly, technology will play a part in achieving this vision, allowing people to manage their health and care, as well as improve their wellbeing. It also enables individuals to live independent lives for as long as they can in their local communities, giving them greater choice and control.

Indeed, an important part of helping people live well with their condition is enabling them to manage their own health. Self-Management is a person centred approach to better health and wellbeing, providing the tools, activities and information people need to manage their condition effectively and live a full life. But increasingly technology is playing a significant role to support people to do this.

Technology also has a role in supporting a rights based approach to health and wellbeing by ensuring that individuals can have access to information and fully participate in decisions about their health and wellbeing. The Charter of Rights for People with Dementia and their Carers in Scotland offers an example of the ways in which rights can be used to empower individuals to take part in decisions, and makes clear what people have the right to expect. This increased participation of individuals who use supports and services amplifies their voices and recognises people as the experts in their own lives.

**What is technology enabled care?**

Many of us benefit from using computers on a daily basis to keep connected – send messages, pay bills, talk to loved ones wherever they are in the world, share family photos. It’s now possible to use a computer to achieve almost anything: buy bus and train tickets, tax your car, claim benefits, find information, do your shopping. Computers, mobile ‘smart’ phones and ‘tablets’ – all of this is what is meant by ‘digital technology’ and it is becoming part of all of our lives. Increasingly technology is also playing a role in enabling people to live well. This leaflet shares examples of how digital technology is being used to enable people to manage their own health, improve wellbeing and support their independence. This includes technology in the home to support older people, disabled people or people who live with long term conditions to live well and safely at home.

**What are the benefits of using digital technology?**

- Reducing social isolation by enabling people to stay connected via technology to family and friends
- Feeling more safe and secure living at home
- Reducing unplanned admissions to hospital through quicker, more responsive services
- Improving self confidence in self managing health and wellbeing
- Increasing access to specialist hospital appointments and professional advice and support by using videoconferencing facilities, thus reducing unnecessary travel time

It is acknowledged that digital technology can play a role in:

- Reducing visits to Accident and Emergency
- Reducing emergency admissions
- Lowering mortality rates
- Reducing need for GP appointments
- Increasing individual choice and control

**Using digital technology to live well**

While advances in computers and technology have an important role to play in shaping the future of services, the number of people using digital technology is very variable in different areas in Scotland. Most of the developments in telehealth for example require people to have existing digital access such as broadband and good mobile (3G & 4G) signals. While approximately 76% of the population in Scotland have internet access, there are places such as Glasgow where this figure is a much lower 60%. Those who are less likely to be connected to the internet are predominantly older, in lower income groups and likely to live in social, rented accommodation.

The Scottish Government is keen to increase the number of individuals in Scotland who have access to a range of telecare and telehealth. To make this happen they have invested in ensuring that people in Scotland can benefit from technology.

This is something that Scotland is already very good at - for example, the Joint Improvement Team’s Telecare Development Programme, which invested over £20 million over five years from 2006-2011, is regularly recognised as one of the top programmes of its kind across Europe. Additionally the Reshaping
Care for Older People Change Fund has allocated £300 million on innovative solutions to improve health and wellbeing, including telehealth and telecare.

In order to further improve access, the Scottish Government has launched a £10 million fund to help health boards and local authorities embed technology-enabled care as standard practice for people using health and social care and related support services.

### Supporting Individuals in their Home

#### How telecare can help

Telecare is a way to support people to feel safe and secure in their own home and consists of a range of tools such as monitors, sensors, location services and alarms which can be put in place 24 hours a day, 365 days a year to support vulnerable people live more independently for longer at home. This has been shown to play an important role in reassuring the individual, as well as their families and carers.

One of the most common forms of telecare is a personal alarm system where a message is sent down the telephone line to staff who will answer the call – this is done using standard technology. More complex systems can also, for example, monitor daily activity – including home care and support activity – and enable safer walking in the community for people who are physically or mentally frail. Technology can also be used to detect falls and epilepsy seizures, enabling help to be summoned and facilitate medication prompting at the right time.

There are now many ways of using technology to make sure people can stay in their own home for as long as possible.

#### How telehealth can help

Telehealth is the provision of health services at a distance using a range of familiar digital and mobile devices such as tablets and smartphones – even your digital TV can be used.

It can help with diagnosing and monitoring people living with long term conditions through the use of technology in the person’s home or local hospital/community setting. Telehealth can be used to monitor things like blood pressure, heart rate, oxygen levels and other vital signs.

It can therefore form a useful part in assisting people to manage long term conditions such as Chronic Obstructive Pulmonary Disease (COPD), Chronic Heart Failure (CHF) and Diabetes.

In research undertaken in 2012, a study of 1.75 million people in Scotland found rising numbers are living with more than two long-term conditions. The survey showed that 42.2% of all people had one or more conditions, and 23.2% had several conditions. Many of these people are struggling to manage their condition, as they do not have either a full understanding of their symptoms or an ability to detect the early warning signs in time to take appropriate action. Telehealth can support this, and it plays an increasingly important role in supporting people with several conditions. It enables individuals to take more control and to better understand their own health, and can lead to people having a better quality of life.

#### Anne’s Story

Anne is an older person who has dementia and lives alone. She wants to stay in her own home, and her family have agreed that they will do as much as they can to enable that to happen.

However, when Anne began to leave her home at night, her family faced a challenging time. On one occasion she was admitted to hospital because she was unable to say where she was from and it was a source of constant worry for her family. As her daughter Roberta put it “we were wondering whether we were hurtling towards full-time care.”

A sensor has now been installed at Anne’s front door, which is programmed to raise the alert if she opens it after an agreed time in the evening. The alert is sounded in a monitoring centre and staff there can communicate directly with her, without having to call her daughter. Roberta describes the telecare service as “a godsend”. The staff at the monitoring centre have been able to build up a trusted relationship with Anne which means that they can dissuade her from leaving the house at inappropriate times and keep her safe in her home. Telecare has therefore enabled Anne to attain her wish to live at home and for her family to feel more confident about her doing so safely.

#### United4Health

The United4Health programme will give several thousand people living with diabetes, COPD or heart failure across Lanarkshire, Ayrshire & Arran and the Renfrewshire areas a central role in the management of their condition. It will do this through home-based monitoring of an individual’s health and wellbeing. This enables earlier detection of worsening health, supporting self-management and early treatment that helps avoid unnecessary hospitalisation and enable earlier discharge from hospital for people who can be safely supported at home as part of their recovery process.
Meggie’s Story

Ten year old Meggie has Alagille Syndrome, a rare form of liver disease that affects one in 100,000 people. At seven and a half years old, she had a liver transplant which means she needs anti-rejection medication three times a day, as well as constant medical supervision.

Meggie lives in Inverness but the expertise she needs is in London. Meggie had eight years of making long trips for an appointment that often lasted only 10 minutes. Her view was clear: “I don’t like it. It’s very boring and it’s very tiring and I don’t like it as I’m staying away from my family”. In addition to the stress of travelling, with no immunity and the dangers of picking up germs from others, keeping Meggie healthy whilst travelling was a complicated business.

However, things changed when her family and practitioners became part of a telehealth project at their local hospital in Inverness. Video conferencing allowed them to have their appointments at the local hospital - which is just 30 minutes away from the family home - with a video link to London.

Meggie’s mum Heather said “We sit with a doctor and a couple of nurses and the video is set up in front of us and the doctors from London. They may get the doctor who’s sat with me, to examine Meggie and he can report over the screen what he’s hearing. Having a doctor next to me provides peace of mind for me, so I know the check-up is exactly the same as they would have done themselves.”

Meggie much preferred the video link “I think it’s really fun because you don’t have to travel”. Removing the stress of long trips to distant hospitals made a big difference to Meggie’s sense of wellbeing. As her mum said “The older she’s got, the more negative hospitals have become to her. She can see herself on the screen as well as talk to her doctors and know that she doesn’t actually have to have an overnight stay. That’s brilliant!”

Telehealth has therefore allowed Meggie and her family to feel confident about the care and support that she is receiving without the stress of long distance trips.

Supporting People Living with Multiple Conditions and Unpaid Carers

An important part of helping people and those who care for and support them to live well with their condition is enabling them to manage their own health. As previously mentioned to be confident and successful in self management, people require support and relevant advice. Self management support is usually provided close to home, sometimes by people who have been through similar experiences and have benefited from exercising choice and control that puts them in the driving seat of their own lives. For unpaid carers, the Carers Strategy sets out that by 2015, the Scottish Government has committed to maximise the impact of telecare investment to ensure that the benefits and applications of new technology for carers continues and develops. There have been a variety of projects created which further this aim, some of which are detailed below.

Carers Link - Link @nd Learn Project

The project is enabling access to local training resources online ensuring that carers are able to access information and training at a time and place that suits them through participation from home in ‘live’ webcasts or watched later ‘on demand’. For those carers not yet comfortable with using a computer – often older carers - training will be provided at their home through project volunteers.

More information on the project can be found at www.carerslink.org.uk/learning-hub

PAMIS – Manage IT Project

The main aim of this project is to use familiar technology to enable parents to improve their ability to manage the long-term conditions affecting their son or daughter with profound and multiple learning disabilities. The team help families to:

• develop skills to use technology
• have more confidence using technology
• increase their knowledge and understanding of technology
• improve their access to technology and software
• enhance their communication with others, including carers and professionals and to record and manage information on health; e.g. medication, seizures and behaviour.
A vast amount of information from all over the world is freely available to everyone through the internet. There are many ways to access this information, for example through your home computer, tablet, smartphone or – increasingly – through your smart TV. And if you don’t have any of these, you can usually access the internet through your home computer, tablet, smart phone or –

A Local Information System for Scotland (ALISS) is a technology solution but a means of communities working together to gather, maintain and share information by encouraging new contributions to a technology solution but a means of communities working together to gather, maintain and share information by encouraging new contributions to information about local support. People who have used ALISS report that it can play a part in reducing the amount of resources that can support health and wellbeing, yet it is often difficult to find information about what is available in our local area. ALISS signposts people to community resources for example — places, groups, activities, opportunities, events and services. This can include your local GP using ALISS to refer you to a local community resource. It therefore offers not only information about local support but is also able to help people to better self-manage their health and wellbeing.

However, not everyone is able to get online easily. The third sector and housing organisations are heavily involved in providing free Wi-Fi access to residents. The BT Digital Inclusion Project has been one of the most successful initiatives in the UK, with over 200,000 households benefitting from the service. The Digital Inclusion Project is working with organisations such as Glasgow Housing Association (GHA) to ensure that everyone has access to the internet. GHA has found that more than two thirds of people in these households are using the internet more than at the start of the study, and 8 out of 10 people are using technology to communicate with family and friends and feel less isolated.

Living it Up
Living it Up is an innovative digital programme delivered in partnership between NHS24, the Scottish Government and the Technology Strategy Board. Living it Up has been designed and coproduced by people, communities and local partnerships across Scotland, including local NHS Boards, Third Sector organisations, academia and industry. Living it Up offers people more choice, control and confidence to get more out of life. www.livingitup.org.uk is a digital service for the over 50s where you can get and share local information, products and services, along with interactive tools for a happier, healthier lifestyle. You’ll soon DISCOVER new opportunities. Ways to CONNECT with your local community. Ideas for letting your talents SHINE. In fact, everything you need for your health and wellbeing to FLOURISH. Allowing communities to use their ‘know-how to feel good’. Living it Up aims to:

- support people living with long term conditions and those who care for them who want to keep healthy, happy and safe
- connect people with a range of services and opportunities in their local community

Living it Up has been designed so that people can access it using familiar technologies including mobile phones, tablets and computers, as well as making good use of face to face connections in the community.

More information can be found on the Living it Up website at https://portal.livingitup.org.uk

Glasgow Housing Association (GHA) – Digital Inclusion Project
More than a hundred households in a GHA multi-storey building will be able to connect to the internet as part of a new project to encourage digital participation. It’s the first large-scale Scottish project of its kind and is believed to be among the first in Europe. The GHA, which is part of Wheatley Group, has teamed up with the Scottish Government and BT to give tenants in a block in Kirkton Avenue, Knightswood, affordable Wi-Fi access. The trial project will see each of the 138 households in the GHA block offered a new tablet to connect to high speed Wi-Fi access points throughout the building, linked back into the main BT network via a single fibre cable. Evaluation undertaken by the GHA has found that more than two thirds of people in these households are using the internet more than at the start of the study, and 8 out of 10 people are using technology to communicate with family and friends and feel less isolated.

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The Future
A digitally enhanced future for people who use health and wellbeing services

The Scottish Government has set a goal of creating a personalised electronic patient record for every individual in Scotland by 2020. This will allow people to digitally access and jointly manage the health and care information that is important to them and their wellbeing. Involving people in their records and information will ensure that complex clinical information is explained, which can improve self-management of conditions and foster good relationships with health professionals.

Technology systems in GP practices are already starting to offer online services such as appointment bookings, repeat prescriptions and access to information including test results. People who use services increasingly want to see this in their local areas.

As part of the Scottish Government’s commitment to improve patient safety across all healthcare, work is currently underway to deliver a digital system which will create a shared virtual medicines record. This will promote faster access to the right medicines on discharge from hospital, which is especially important to those with several long-term conditions and associated medication.

These are just some of the ways in which people can exercise choice and control over their health and wellbeing.

Fundamentally, the recognition of every individual’s right to participate in decisions which affect them should continue to underpin any digital health programmes and activities. Technology can play an important role in supporting people to live well at home when they are developed with people at the centre. This leaflet has given an overview of some of the current activity surrounding telehealth and telecare and other technology.

To find out more, please visit any of the following websites:

www.alliance-scotland.org.uk/what-we-do/self-management/
www.jitscotland.org.uk/action-areas/telehealth-and-telecare/
www.sctt.scot.nhs.uk/
www.carersuk.org/scotland/training-resources/telehealthcare
www.livingitup.org.uk
www.scotland.learnmyway.com

Health and Social Care Alliance Scotland

The Health and Social Care Alliance Scotland (the ALLIANCE) is the national third sector intermediary for a range of health and social care organisations. The ALLIANCE has over 770 members including large, national support providers as well as small, local volunteer-led groups and people who are disabled, living with long term conditions or providing unpaid care. The ALLIANCE has three core aims; they seek to:

- Ensure people are at the centre, that their voices, expertise and rights drive policy and sit at the heart of design, delivery and improvement of support and services.
- Support transformational change, towards approaches that work with individual and community assets, helping people to stay well, supporting human rights, self management, co-production and independent living.
- Champion and support the third sector as a vital strategic and delivery partner and foster better cross-sector understanding and partnership.

To find out more, please visit www.alliance-scotland.org.uk

The Joint Improvement Team

The Joint Improvement Team (JIT) is a uniquely positioned strategic improvement partnership between the Scottish Government, NHSScotland, COSLA (Convention of Scottish Local Authorities) and the Third, Independent and Housing Sectors. They provide a range of practical improvement support and challenge including knowledge exchange, developmental innovation and improvement capacity and direct practical support to local health, housing and social care partnerships across Scotland. JIT champions the identification, development, evaluation, spread and adoption of good practice to accelerate the pace of improvement towards the Scottish Government’s vision for 2020; a vision that includes the aims that each of us is able to lead a longer, healthier life at home or in our own choice of setting in an integrated health and social care environment – which includes an increasing focus on prevention, anticipation and supported self-management.

To find out more, please visit www.jitscotland.org.uk

The Scottish Centre for Telehealth and Telecare

The Scottish Centre for Telehealth and Telecare was established to support and guide the development of telehealth and telecare throughout Scotland. This involves working across boundaries with industry, academia, local authorities, NHS Boards and voluntary and independent sectors to develop recognised models for redesigning health and care services.

More information can be found at www.sctt.scot.nhs.uk